# Recent Bank Written Math Solution

## Prepared by: *Musfik Alam*

### Recent Bank Written Math Collection:

1.Bangladesh Bank Assistant Director(General Side)  - ( 17-02-2017)

2.United Commercial Bank Limited Probationary Officer - (17-02-2017)

3..Bangladesh Krishi Bank Senior Officer (20-01-2017)

4.Sonali Bank Officer IT – (23-12-2016)

5.Sonali Bank  Senior Officer IT ( 09-12-2016)

6.Janata Bank EO (Electrical)-2017

7.Janata Bank EO (Civil)-2017

### Bangladesh Krishi Bank Senior Officer (20-01-2017)

1.A man deposits 5000 tk at 5% annual interest for six months. In every six months he withdraws tk 500 from his principal plus interest earned. What is the total amount of interest he received?

Solution: Semi annual, so Interest rate= 5/2%=2.5%

Total Interest= 2.5%*5000 + 2.5%*4500 + 2.5%*4000 + 2.5%*3500 + 2.5%*3000 + 2.5%*2500 + 2.5%* 2000 + 2.5%*1500 + 2.5%*1000 + 2.5%*500

=2.5%*27500

=687.5 Tk.

2.A man interest and wages from his investment tk 5000. If he invests double then the wages increased 50% and total amount is tk 8000. What is his actual income in terms of wages and interest?

Solution:

Let, Investment be X and Wages be Y

ATQ.

X +Y= 5000 ....(i)

2X + 1.5 Y= 8000....(ii)

Now, 2*(i)-(ii)=>

we get,

x=1000 and Y=4000

Ans: Investment= 1000 and wages=4000

**3.20 men can finish a work in 30 days. After how many days can 5persons leave the work and the remaining work can be finished in 35 days?**

Solution:

20 men can do in 30 days

1 man can do 30*20=600

Let,

20men can do in X days

1 men can do in 20 days

Again,

20-5=15men can do in 35-X days

1 men can do in 15(35-x) days



ATQ,

20x + 15(35-x)=600

X= 15 (Ans)

**4. A man goes to his office at a certain time. If his waking speed is 5kmh then he is 7 minutes late. When his speed is 6kmh he reaches 5minutes before. How far his office from his house?**

Solution:

Let, total distance be X km

ATQ,

x/5 -7/60 =x/6 +5/60 [Time=distance/Speed]

x= 6 km

5.In a mixture the ratio of apples, peaches and grapes is 6:5:2. If the total mixture is 39 pounds then what is the difference between apples and grapes?

Solution:

Let, Apple, Peaches and Grapes 6x, 5x and 2x respectively.

Apple=39* (6x/13x)=18

Grapes= 39*(2x/13x)=6

Difference= 18-6=12 (Ans)

## Sonali Bank Limited Officer (IT) (23-12-2016)

1) The salaries of Lamia and Farzin are in the ratio 7:5 and the total of their salaries is Tk 12000. If their annual increments are Tk 200 and Tk.150 respectively, what will be the ratio of their salaries after one year?

Solution:

Let,

L = 7x

F= 5x

A/Q,

7x+5x = 12000

12x = 12000

x = 1000

So,

7x= 7*1000 = 7000

5x = 5*1000 = 5000

Now, required ratio = (7000+200): (5000+150)

= 7200: 5150 = 144:103

Answer: 144:103

2) A man goes upstream at 10 km/hr to a place and back down stream to same point at 6 km/ hr. what is the average speed in the journey?

Solution:

Average speed = (2*6*10)/(10+6)=7.5

Ans : 7.5 km/hr

3) A man is standing on a railway bridge which is 180 m long. He finds that a train crosses the bridge in 20 seconds but himself in 8 seconds. Find the length of the train.

Solution:

let, lengh of the train x

now,

x/8 = x+ 180/20 ( Considering, Speed equal in both case)

hence solving equation

x = 120

speed = 120/8* 18/5 = 54

Ans : 120 m and 54 kmph

4) The sum of ages of the Father and Son is 50 years. when the ages of the son will be equal to the present age of the father, the sum of their ages will be 102 years. Find the age of Father and Son?

Solution:

Let,

Age of Father = X

Age of Son = x -50

Again,

When age of son will x, the age of father will = x + ( X - (50-x)) = 3x -50

Now,

3x-50+ x = 102

x = 38

Father's age = 38

Son's age = 50-38 = 12

5) By selling a table for tk 39, gain is as much as percent as its cost. What is cost price?

Solution:

Suppose,

Cost price = x

Gain = x%

atq,

x+x% of x = 39

x+x^2/100 = 39

100x+x^2 = 3900

x^2+100x-3900 = 0

x^2+130x-30x -3900= 0

(x+130)(x-30) = 0

x= -130 ( price can't be negative)

or , X= 30

Ans:30 taka

## United Commercial Bank Limited Probationary Officer - 2017(17-02-2017)

1: Mr X asked to construct a road of 1920 meters in 120 days. He appointed 160 workers and find that in 24 days only 1/8 portion of work has been finished. How many additional number of workers would be needed in order to completing the whole work in time?

Solution:

Remaining work = 1 - 1/8 = 7/8

Remaining number of days = 120-24 = 96

to do 1/8 of the work in 24 days, he needs = 160 workers

to do 7/8 of the work in 24 days, he needs = 160*7 workers

to do 7/8 of the work in 96 days, he needs = 160*7*24/96 workers = 280 workers.

additional workers needed = 280-160 = 120.

ans: 120.

2: The simple interest on a sum of money will be Tk.600 after 10 years. If the principal is trebled after 5 years will be the total interest at the end of the tenth year?

Solution:Interest of 10 years = 600 tk

interest of 1 year = 600/10 = 60 tk

if the principal is trebled, the interest will also be trebled.

So, total interest in 10 years = (interest in first 5 years) + (interest in next 5 years) = (60×5) + (60×5×3) = 1200 tk

ans: 1200 tk.

## Bangladesh Bank Assistant Director(General Side)   ( 17-02-2017)

1.A man sells an article at a profit of 25% if he had bought it 20% less and sold it for Tk. 10.50 less he would gained 30%,find the cost price of the article?

Solution:

Let The C.P be Tk. x

Then S.P=x+x*25%=1.25x

When C.P 20% reduced,new cost=x-x*20%=0.80x

New S.P=0.80x+0.80x*30%=1.04x

ATQ,

1.25x-1.04x=10.50

x=50

2.A and B can do a piece of work in 18 days,B and C can do it in 24 days.A and C can do it in 36 days.In how many days will A,B and C finish it together and separately.

Solution:

By adding,we get

In1day 2(A+B+C)work=(1/18+1/24+1/36)=1/8 portion

In 1 day (A+B+C)=1/16

So A,B and C together can finish the work 16 days.

In 1 day A work=(A+B+C)-(B+C)=1/16-1/24=1/48

A alone can finish the work 48 days

In 1day B work =(A+B+C)-(A+C)=1/16-1/36=5/144

B alone can finish the work 144/5 days

In 1 day C work=(A+B+C)-(A+B)=1/16-1/18=1/144

C along can finish 144 days.

Ans: A=48 days,B=144/5 days,C=144 days

1.A boat takes 3 hours to travel to a certain distance with the stream and return to the original place in 5 hours.How long will ot take to travel the same distance in stationary water?

Solution:

Let,The speed of the boat in stationary water id P kmph

The rate of the stream in Q kmph and the distance is D km

Atq, p+q=D/3........(.i)

and p-q=D/5........(ii)

(i)+(ii)

2p=8D/15

p=4D/15

So,required time to cover the distance in stationary water is =D/p=15/4=3 hrs 45 min

Ans: 3 hours 45 Min

2.A man has TK.300000.He invests a part of amount at 8% and the remaining amount at 10% p.a.At the end of the year he earns a profit of TK.25600 from his entire investment.Find the amount he invested undet each rate.

Solution:

Let In 8% he invested TK.=x

10% he invested Tk=(300000-x)

Atq,

x*8*1/100+(300000-x)*10*1/100=25600

x=220000

So he invested Tk.220000 at 8%

and Tk. (300000-220000)=80000 at 10%

Ans: 220000TK, 80000TK

3.Mashrsfee purchased a 30 inch-TV which height was 18 inche.If the size of a TV is expressed as the lengths of its diagonal,find the width of the TV Mashrsfee purchased?

Solution:

Let, The width of the TV is =p inches

ATQ, p^2+18^2=30^2

p=24

Ans: 24 inches

4.The ratio of the girls and the boys in a class was 2:5.If two new girls join the class,the ratio becomes 1:2.what was the total number of students in the class?

Solution:

Let,The number of girls in the class was =2x

and the numbet of boys in the class was=5x

The total number of students in the class was=2x+5x=7x

Atq,

2x+2:5x=1:2

x=4

So,The total numbet of students in the class was=7*4=28

Ans:28

5.How many liters of 15% salt solution must be added to 5 liters of 8% salt solution to get a 10% salt solution?

Solution:

Let, x liters of 15% should be added

Atq

(0.15*x+5*0.08)/x+5=0.10

x=2

Ans:2 liters.

A lamp is manufactured to sell for $35.00,which yields a profit of 25% of cost.If the profit is to be reduced to 15% of cost,what will be the new retail price of the lamp?

Solution:

Let,the C.P of the lamp is $100

Now,at 25% profit the S.P=$(100+25)=$125

If S.P $125 then C.P=$100

If S.P $35 theb C.P=$100*35/125=$28

Again,at 15% profit The S.P or Retail Price=$(100+15)=$115

If C.P $100 then ratail price=$115

If C.P $28 then retail price=$115*28/100=$32.20

Ans: The new retail price of the lamp will be $32.20

## Janata Bank EO (Civil)-2017

The price of a balcony seat in a theater is 1/3 of the price of a seat in the orchestra.When the theater is completely sold out,the total receipts from the 600 orchestra seats and the 450 balcony seats are $4500.What is the price of one orchestra seat?

Solution:

Since the price of a balcony seat in a theater is 1/3 of the price of a orchestra seat.

So,let the price of a seat in the orchestra= $x

The price of a balcony seat=$x*1/3=$x/3

Atq,

(600*x)+(450*x/3)=4500

x=6

Ans:The price of one orchestra seat is $6.

# Prepared by: *Musfik Alam*

Thankyou…………………………… Thankyou …………………………….Thankyou

## The End

সব ধরনের ই-বুক ডাউনলোডের জন্য

# MyMahbub.Com